RACT/BACT/LAER Clearinghouse (RBLC)
Clean Air Technology Center
Annual Report for 2003

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RACT/BACT/LAER CLEARINGHOUSE (RBLC)

CLEAN AIR TECHNOLOGY CENTER

ANNUAL REPORT FOR 2003

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ACCESSING THE RBLC WEB

The RACT/BACT/LAER Clearinghouse (RBLC) maintains an on-line data base (RBLC Web) of all control technology determinations that have been submitted to it. The RBLC Web and other related information are available at the Internet address listed below. Detailed instructions about how to access the RBLC are contained in the RBLC User's Manual.

World Wide Web (WWW) http://www.epa.gov/ttn/catc/

The RBLC can be reached by clicking the appropriate icon on the CATC home page.

The RBLC Web site lets you access all of the information in the Clearinghouse with your Web browser. To access the online data entry portion of the RBLC, you must be an authorized permit agency editor. Contact the Clean Air Technology Center (CATC) Information Line at (919) 541-0800 for information on gaining authorization for online data entry. Data can also be entered off-line by using the RBLC Standalone Editor, a computer program that you can run on your personal computer. The RBLC Standalone Editor can be downloaded from the RBLC Web. It simulates data entry on the RBLC Web and generates a file that can be sent to the RBLC by E-mail or on a floppy disk. Call the CATC Information line for more information.

ACKNOWLEDGMENT

This project would not have been possible without the cooperation of the many State and local air pollution control agencies and EPA Regional Offices who submitted the necessary technical information. A list of all Regional offices and State and local agency RBLC contacts is provided in Appendix B.

Special thanks are given to Mr. William Becker, Executive Secretary for the State and Territorial Air Pollution Program Administrators/Association of Local Air Pollution Control Officials (STAPPA/ALAPCO), Mr. Robert Hodanbosi from the Ohio EPA and Mr. William O'Sullivan from the New Jersey Department of Environmental Protection representing STAPPA, Ursula Kramer, Pima County Department of Environmental Quality (Tuscon, AZ) and John A. Paul from the Regional Air Pollution Control Agency (Dayton, OH) representing ALAPCO, and other State, local, and EPA Regional Office representatives who have provided comments and overall support for the RACT/BACT/LAER Clearinghouse.

INTRODUCTION

This RBLC annual report contains information on the 402 permits entered and the 473 permits modified in the Clearinghouse from January 2003 to December 2003 and provides an overview of data entry activity over the last five years. It summarizes this activity in terms of EPA Regions, States, and industrial processes; discusses trends over the past five years; and presents plans for additions and improvements to the clearinghouse. More detailed information is contained in the appendices.

- Appendix A - About the RACT/BACT/LAER Clearinghouse: The regulatory background and history of the programs served by the RBLC, the purpose of RBLC, and a summary of RBLC Web capabilities.

- Appendix B - Index of RBLC State and Local Contacts

- Appendix C - Index of Control Technology Determinations Entered or Modified in 2003 Sorted by EPA Region and State: A summary listing of the determinations added or updated in 2003. Information includes the name of the company, permit date, process type code, process description, and RBLC ID number as a reference for additional information. A '*' next to the entry indicates that the determination is considered a DRAFT entry and may not be complete.

Previous versions of this annual report have provided extensive tables with detailed information on individual determinations entered in the report year and listings of determinations entered or modified within the past five years. This information is easily available through the RBLC Web and its query and reporting functions. Interested readers can browse the data base on-line for additional details.

A listing of RBLC Process Codes and the RBLC Data Entry Form with instructions are available in the RBLC User's Manual. The RBLC User's Manual and the RBLC Data Entry Form and instructions can be viewed on or downloaded from the RBLC Web.

NATIONAL SUMMARY OF RBLC ACTIVITY

The data entered into the RBLC are provided by State and local agencies. Submittals represent these agencies' permitting and reporting efforts for major new sources and modifications to existing major sources. Submittals to the RBLC are, for the most part, voluntary. Only LAER determinations must be submitted to the RBLC (section 173(d), Clean Air Act).

The year 2003's activity shows a slight decrease from 2002 in the number of new submittals. The yearly totals for determinations entered into the RBLC for the years 1999 through 2003 are shown in Figure 1. Figure 2 shows each region's contribution over the five-year period and for the year 2003. Table 1 breaks down these entries by EPA Region and year for the five-year period.

Region 4 remained the highest contributor for the five-year period by adding 56 new determinations in 2003 and a total of 391 determinations over the five-year period. Region 10, which was one of the lowest contributors from 1999 through 2002, added a significant number of new determinations in 2003. Region 6, with a contribution of 124 determinations, provided the largest number of entries for 2003. A review of the contributions for the individual regions is presented in the next section.

The RBLC has worked with EPA Regional Offices and State and local permitting agencies to identify major New Source Review (NSR) permits issued since 1991 that had not been submitted to the Clearinghouse. Many agencies voluntarily entered these missing determinations. To minimize resource demands on permitting agencies, the RBLC sent its contractor to selected EPA Regional Offices and State and local permitting agencies to acquire missing permit information.

In addition, in 2001, EPA began reviewing all existing determinations in the RBLC with permit issued dates within the previous 10 years to identify information missing from existing RBLC entries. Information on both permit determinations not in the RBLC and information missing from existing RBLC permit entries was acquired during contractor visits. This work continued through 2003 and contributed to the number of determinations modified during 2002 and 2003. Figure 3 details this work graphically.

Figure 1 - Number of Determinations Entered Per Year (1999-2003)

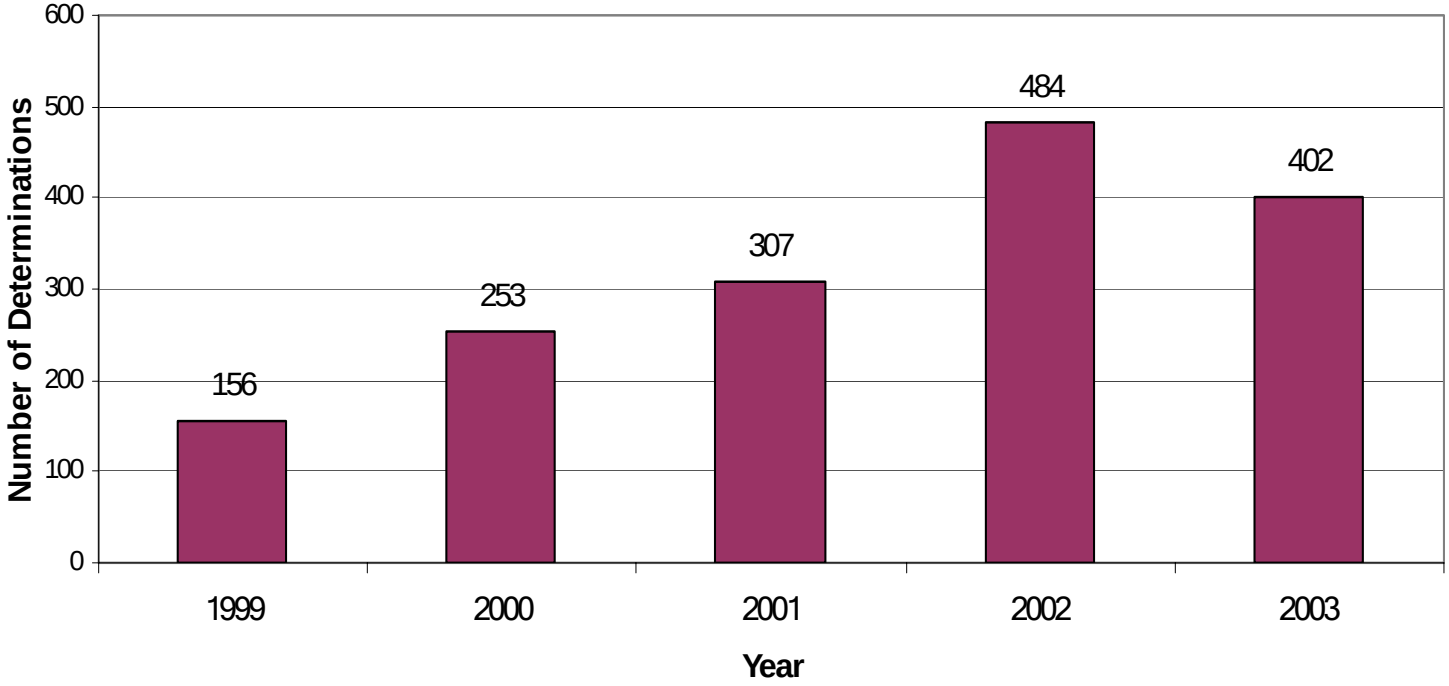


TABLE 1. Determinations Entered by Region 1999 - 2003

YEAR	EPA REGION										TOTAL
	1	2	3	4	5	6	7	8	9	10	
1999	17	2	2	21	24	9	6	25	47	3	156
2000	1	0	12	127	14	13	5	9	64	8	253
2001	37	0	14	52	128	30	24	19	2	1	307
2002	1	38	46	135	87	134	6	3	29	5	484
2003	5	0	38	56	72	124	10	5	43	49	402
TOTAL	61	40	112	391	325	310	51	61	185	66	1602

EPA Regions:
Region 1 - Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.
Region 2 - New Jersey, New York, Puerto Rico and the U.S. Virgin Islands.
Region 3 - Delaware, Maryland, Pennsylvania, Virginia, West Virginia, and the District of Columbia.
Region 4 - Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.
Region 5 - Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.
Region 6 - Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.
Region 7 - Iowa, Kansas, Missouri, and Nebraska.
Region 8 - Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming.
Region 9 - Arizona, California, Hawaii, Nevada, and Pacific Islands and Tribal Nations subject to US law.
Region 10 - Alaska, Idaho, Oregon, and Washington.

Figure 2 - Number of Determinations Entered Per Region (1999 - 2003)

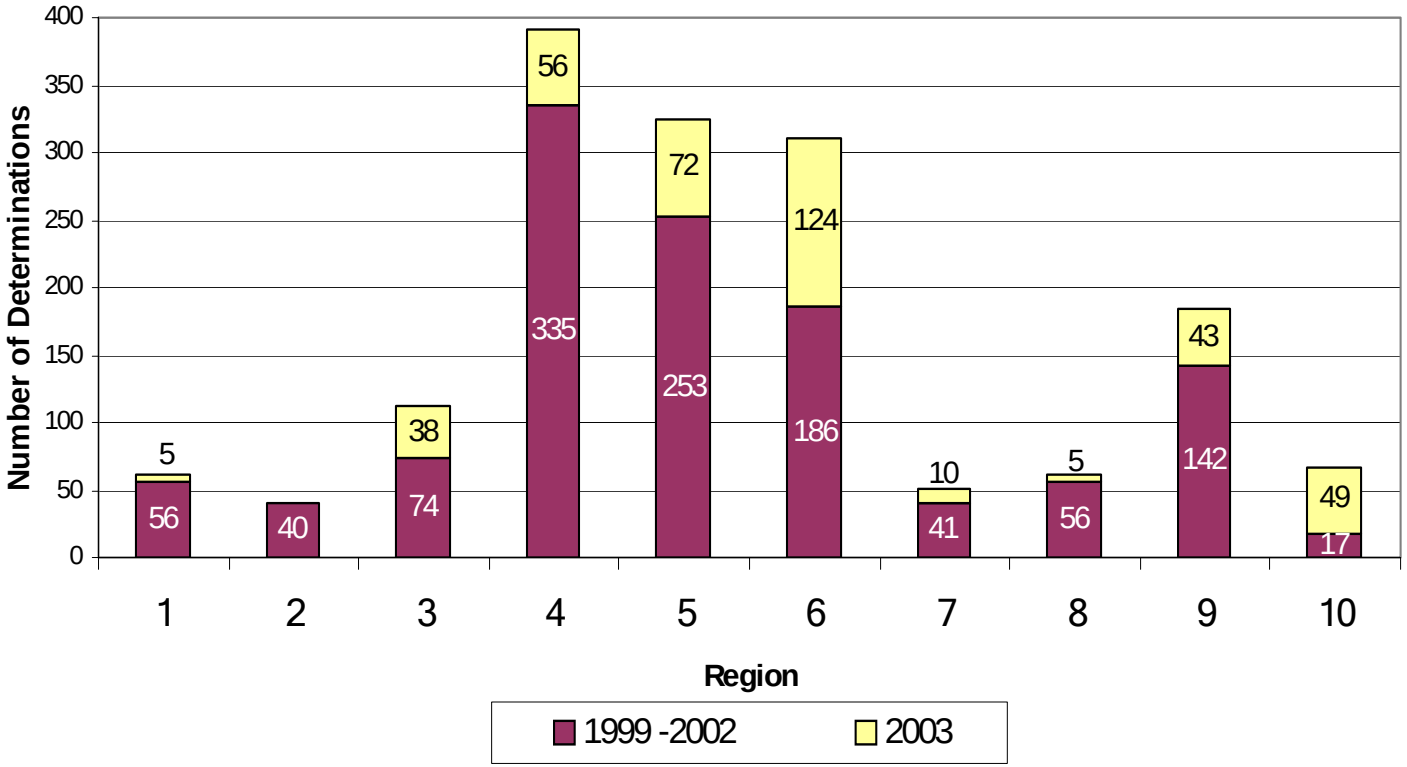
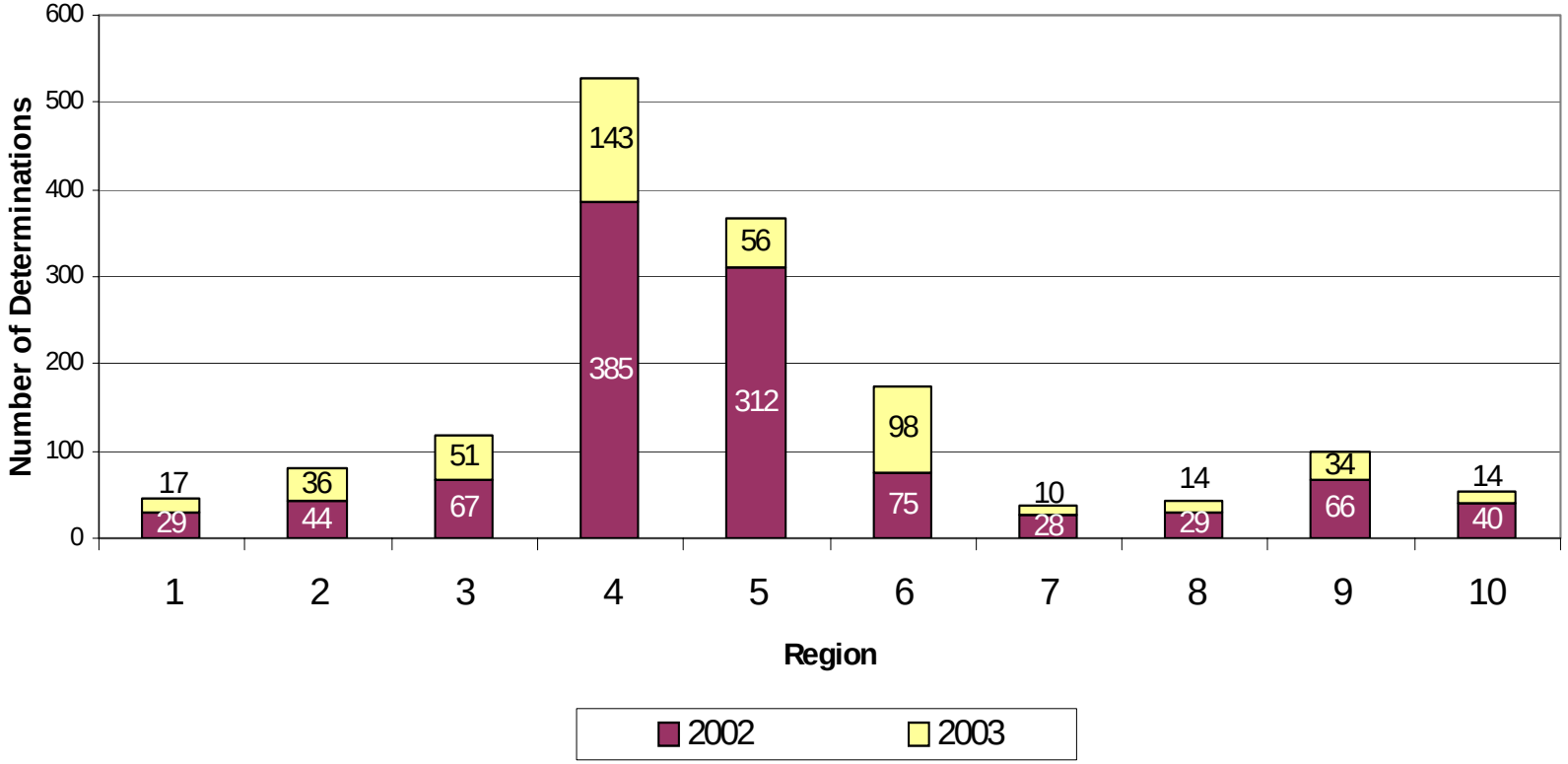


Figure 3 - Number of Determinations Updated Per Region (2002 - 2003)



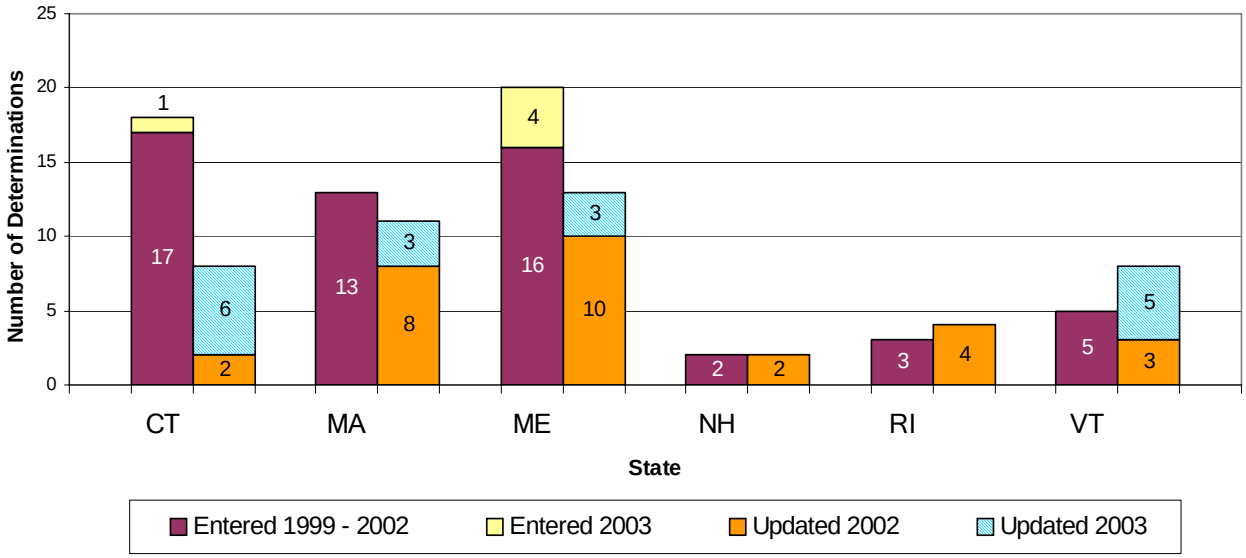
REGIONAL SUMMARY OF RBLC ACTIVITY

The determinations entered by permitting agencies in each EPA Region in the years 1999 through 2003 were presented in Table 1. This section presents the contribution of these agencies, grouped by EPA Region, in more detail. Appendix C, Index of Control Technology Determinations Entered or Modified in 2003 and Ordered by EPA Region and State, provides a detailed list of 2003 entries and updates.

EPA REGION 1

In EPA Region 1, five new determinations were added to the RBLC in 2003, one from Connecticut and four from Maine. Those two States submitted the greatest number of new determinations over the five-year period. Twenty-nine existing RBLC determinations were updated in 2002 and 17 were updated in 2003. In the four previous years (1999 through 2002), 56 determinations were entered, including determinations from each State in Region 1. Figure 4 shows the proportional entries by State for 2003 and the years 1999 through 2002, respectively, as well as the updates for 2002 and 2003.

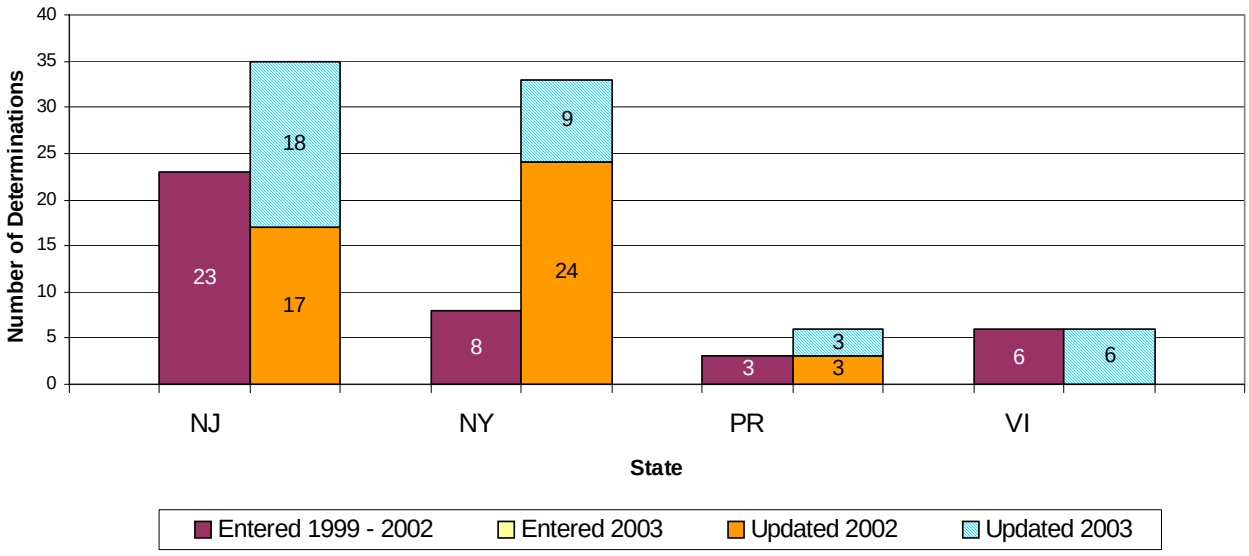
Figure 4 - Number of Determinations Ordered by State in Region 1 (1999 - 2003)



EPA REGION 2

No new determinations were added to the RBLC in 2003 for Region 2. In the four previous years, 1999 through 2002, 40 determinations were entered. During that period, all of the States in Region 2 entered determinations; New Jersey was the leading state with 23 entries. A total of 36 determinations for Region 2 were updated in 2003. Determinations were updated for all States in Region 2, including New Jersey, which led the way with 18. In 2002, a total of 44 determinations for Region 2 were updated, including determinations for all States with the exception of the U.S. Virgin Islands. Figure 5 shows the proportional entries by State for 2003 and the years 1999 through 2002, respectively, as well as the updates for 2002 and 2003. (NOTE: EPA Region 2 issues NSR permits in PR and the VI.)

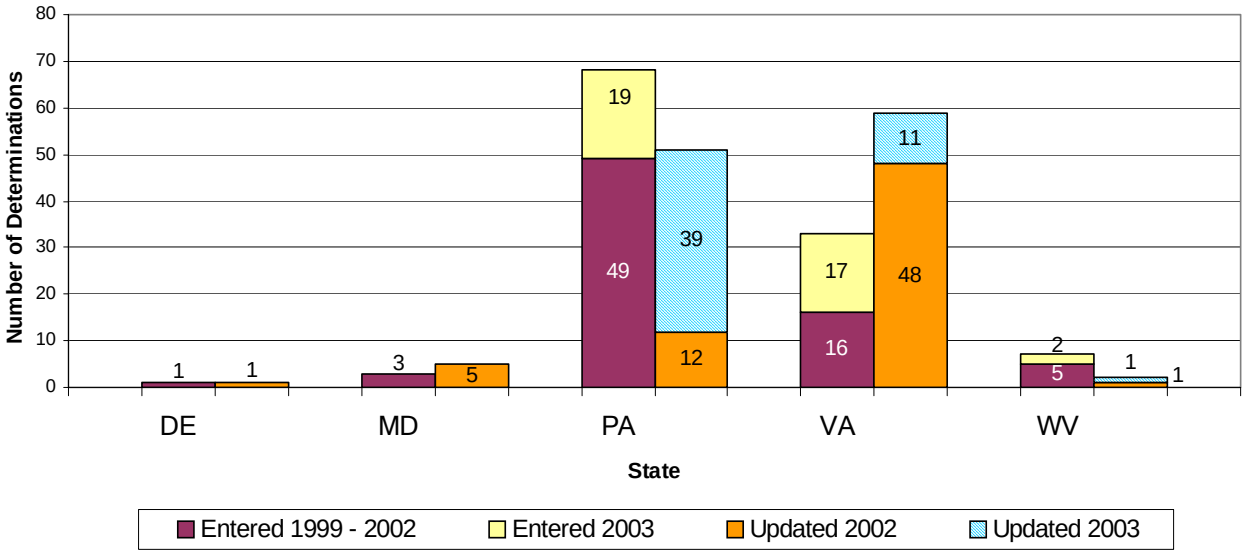
Figure 5 - Number of Determinations Ordered by State in Region 2 (1999 - 2003)



EPA REGION 3

Thirty-eight determinations were added to the RBLC from EPA Region 3 in 2003. In the four previous years, 1999 through 2002, 74 determinations were entered. Pennsylvania and Virginia contributed the greatest number of new entries in 2003 with 19 and 17, respectively. Delaware and Maryland did not contribute any new determinations in 2003. Fifty-one determinations from Region 3 were updated in 2003 and 67 were updated in 2002. Pennsylvania and Virginia had the majority of updated determinations. No determinations were entered or updated by Washington, D.C. Figure 6 shows the proportional entries by State for 2003 and the years 1999 through 2002, respectively, as well as the updates for 2002 and 2003.

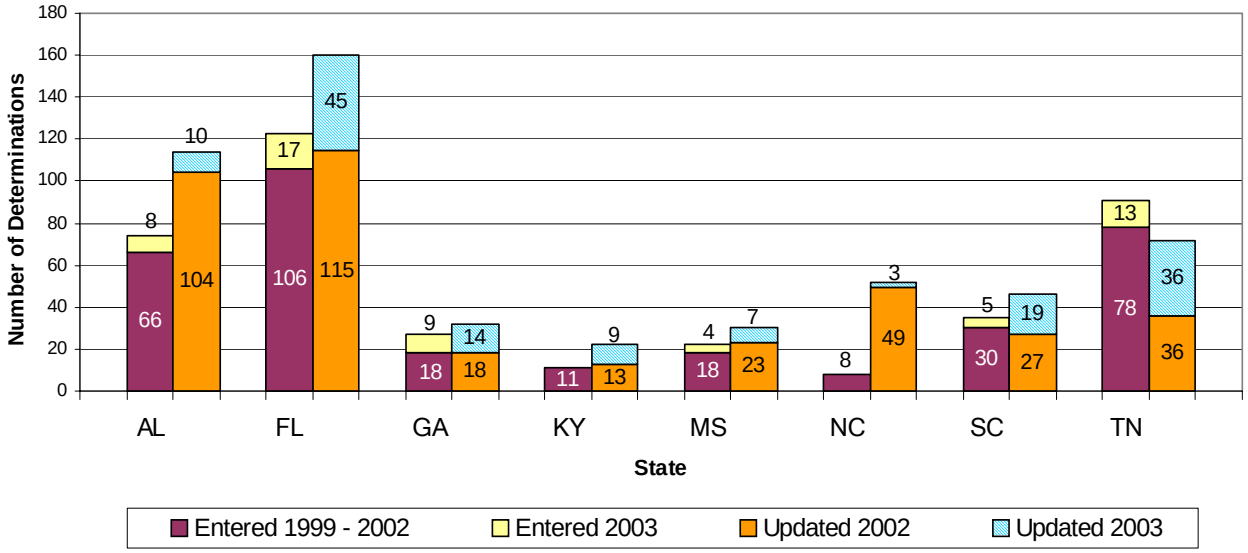
Figure 6 - Number of Determinations Ordered by State in Region 3 (1999 - 2003)



EPA REGION 4

Fifty-six determinations were added to the RBLC from EPA Region 4 in 2003, bringing the total over the five-year period to 391. No other region has entered as many new determinations. In the four previous years, 1999 through 2002, 335 determinations were entered, with Florida, Tennessee, and Alabama having the largest numbers. Florida submitted more than any other State in the Region during the five-year period and also had the most new determinations in 2003. All States in Region 4 except Kentucky and North Carolina submitted new determinations in 2003. One hundred forty-three determinations from Region 4 were updated in 2003, while 385 were updated in 2002. Figure 7 shows the proportional entries by State for 2003 and the years 1999 through 2002, respectively, as well as the updates for 2002 and 2003.

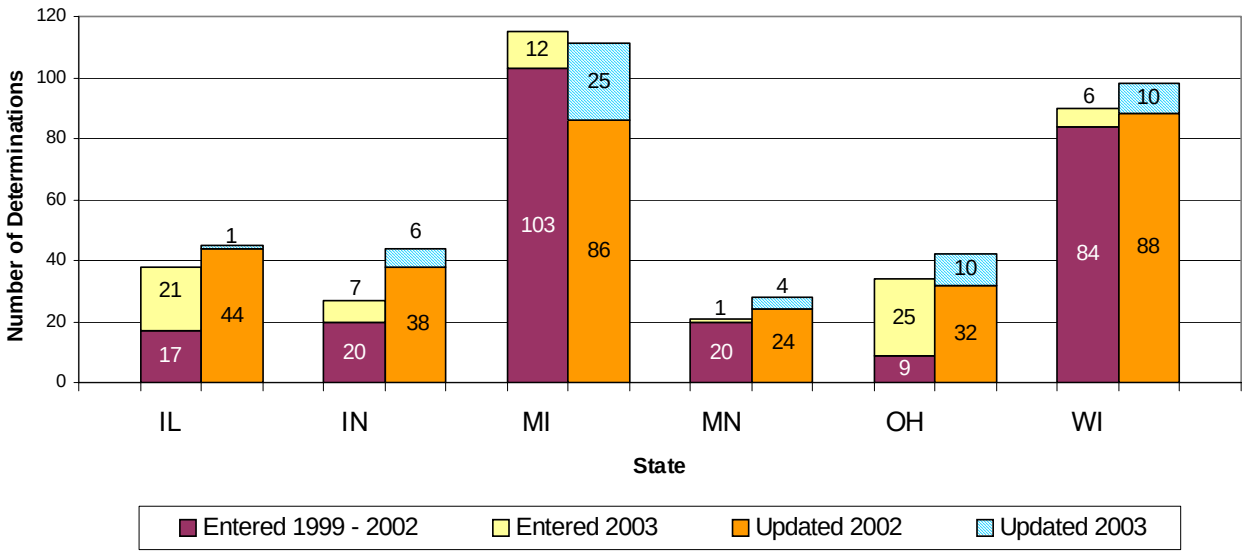
Figure 7 - Number of Determinations Ordered by State for Region 4 (1999 - 2003)



EPA REGION 5

Seventy-two determinations were added to the RBLC from EPA Region 5 in 2003, with over one-third of that total added by Ohio. In the four previous years, 1999 through 2002, 253 determinations were entered. Michigan remained the highest contributor for the five-year period by adding 12 new determinations in 2003 and a total of 115 new determinations during the five-year period. Wisconsin remained the second highest contributor. All of the States in Region 5 updated determinations in 2003; a total of fifty-six determinations were updated. In 2002, 312 determinations were updated, with all of the States also represented. Figure 8 shows the proportional entries by State for 2003 and the years 1999 through 2002, respectively, as well as the updates for 2002 and 2003.

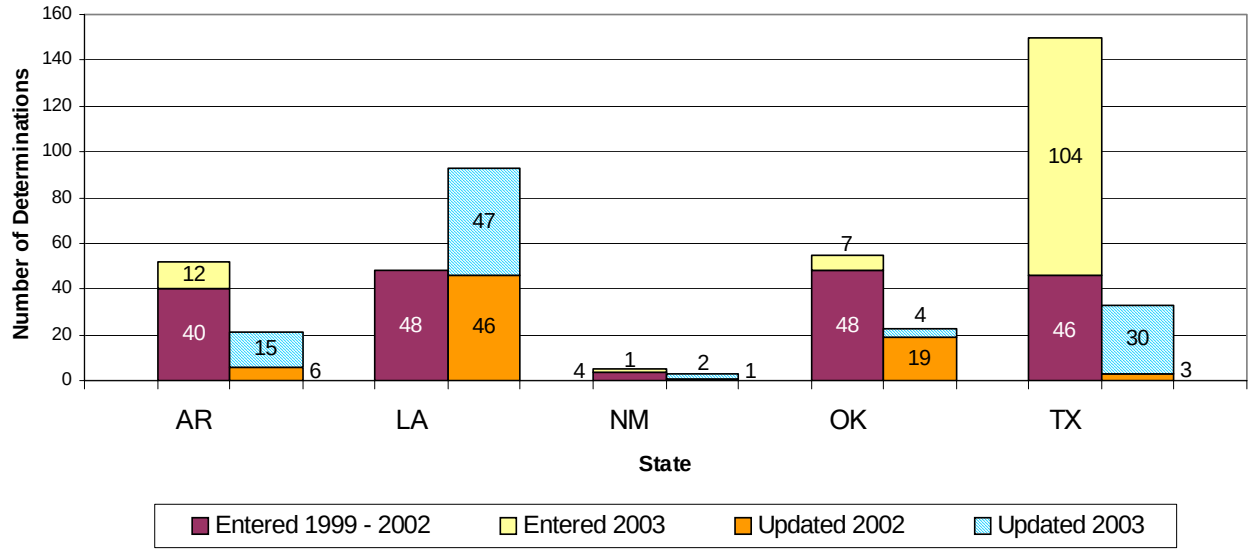
Figure 8 - Number of Determinations Ordered by State for Region 5 (1999 - 2003)



EPA REGION 6

One hundred twenty-four determinations were added to the RBLC from EPA Region 6 in 2003. Texas became the largest contributor for the five-year period by adding 104 new determinations in 2003, more than double its total for the previous four years. This surge in activity resulted from RBLC contractor visits to the Texas Commission on Environmental Quality in 2002 and 2003 to acquire permit data. In the four previous years, 186 new determinations were entered from Region 6. All of the States in Region 6 except Louisiana entered new determinations in 2003, and all of the States updated determinations. Ninety-eight determinations from Region 6 States were updated in 2003, representing an increase from 2002, during which 75 determinations from Region 6 States were updated. Figure 9 shows the proportional entries by State for 2003 and the years 1999 through 2002, respectively, as well as the updates for 2002 and 2003.

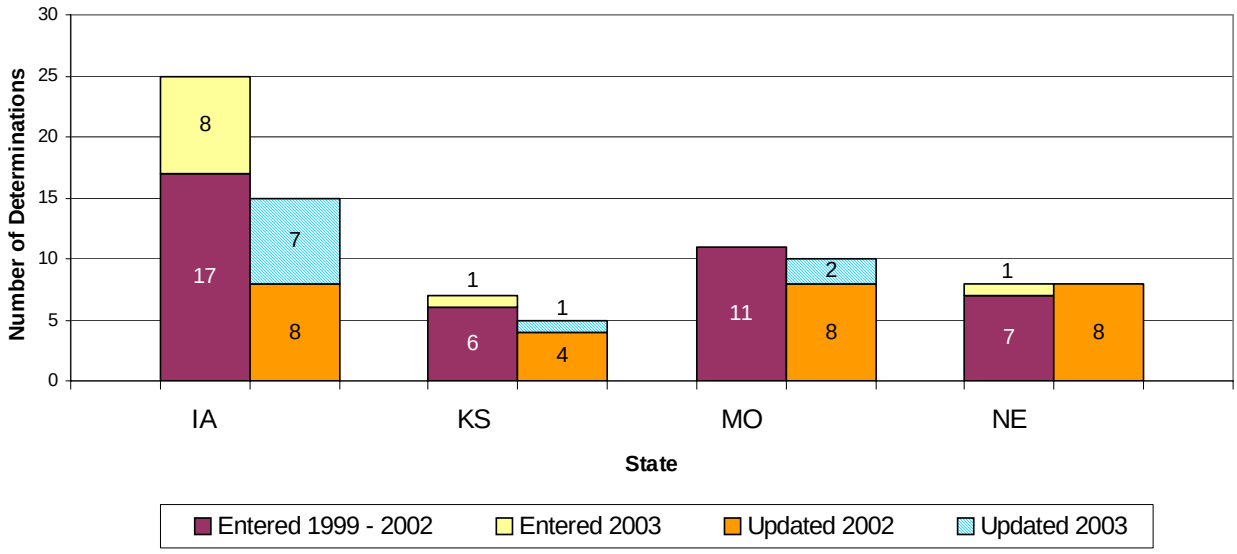
Figure 9 - Number of Determinations Ordered by State for Region 6 (1999 - 2003)



EPA REGION 7

Ten determinations were added to the RBLC from EPA Region 7 in 2003. In the four previous years, 41 determinations were entered. Determinations were submitted from all States in the Region for that period. Iowa, with eight new determinations entered in 2003 and 17 from 1999 through 2002, was the highest contributor for the five-year period. A total of 10 determinations from Region 7 were updated in 2003, with Iowa again having the largest number. A total of 28 determinations from Region 7 were updated in 2002; the updated determinations were distributed fairly evenly among the States. Figure 10 shows the proportional entries by State for 2003 and the years 1999 through 2002, respectively, as well as the updates for 2002 and 2003.

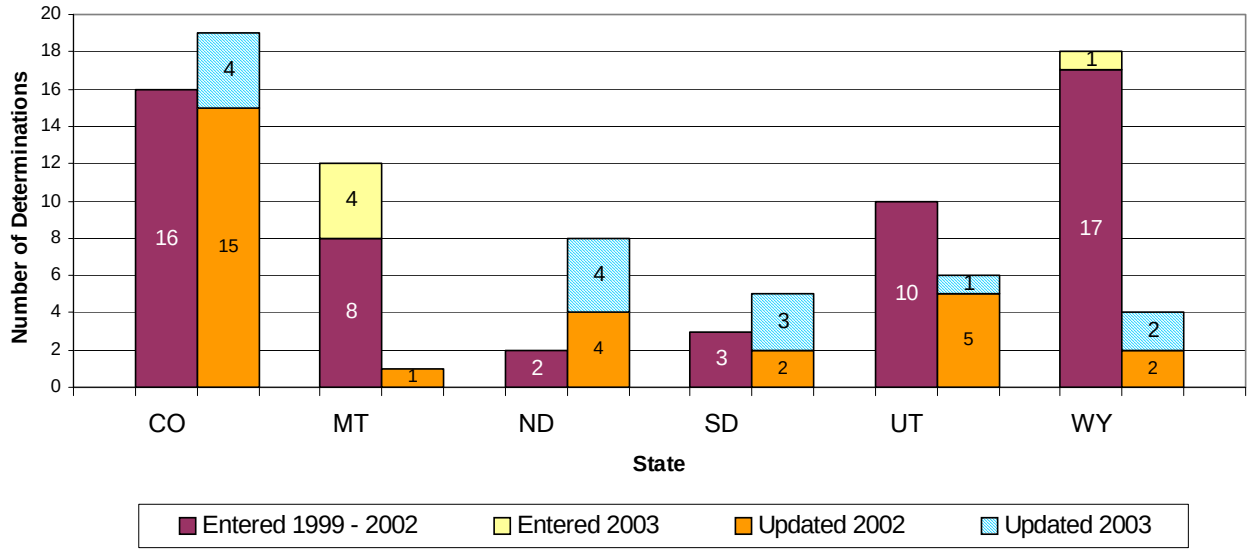
Figure 10 - Number of Determinations Ordered by State for Region 7 (1999 - 2003)



EPA REGION 8

Five determinations were added to the RBLC from EPA Region 8 in 2003. Montana and Wyoming were the only States from Region 8 to submit new determinations in 2003. In the four previous years, 1999 through 2002, 56 determinations were entered. The highest five-year contributor was Wyoming, followed closely by Colorado. Fourteen determinations from Region 8 were updated in 2003. The determinations updated in 2003 were spread fairly evenly among the States. Twenty-nine determinations from Region 8 were updated in 2002, half of which were from Colorado and the other half spread among the other States. Figure 11 shows the proportional entries by State for 2003 and the years 1999 through 2002, respectively, as well as the updates for 2002 and 2003.

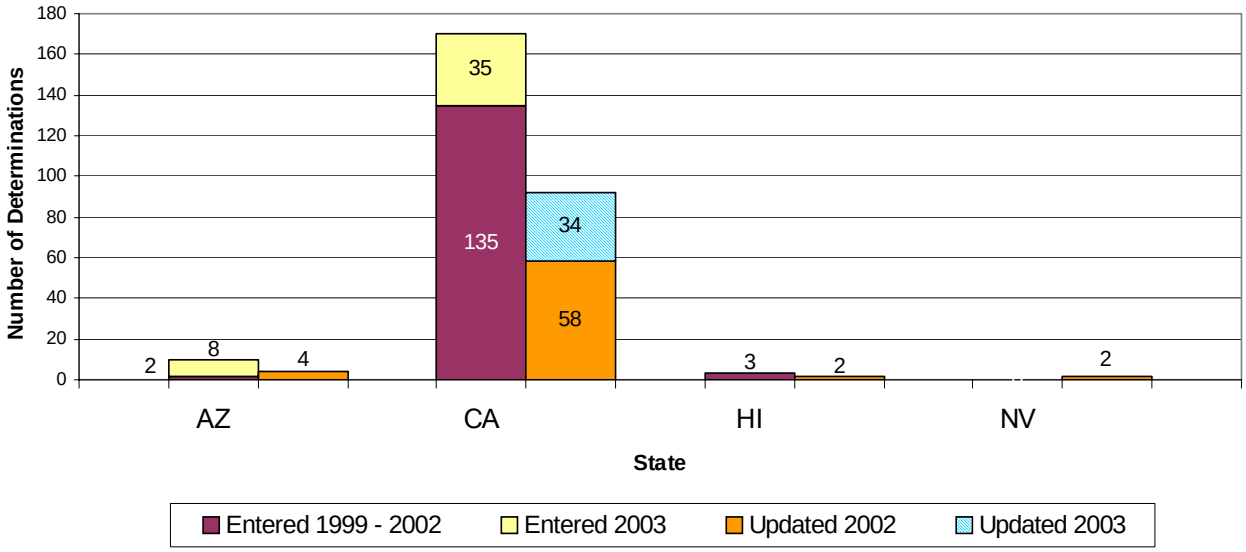
Figure 11 - Number of Determinations Ordered by State for Region 8 (1999 - 2003)



EPA REGION 9

Forty-three determinations were added to the RBLC from EPA Region 9 in 2003. Over three-fourths of the new determinations were from California. The remainder were from Arizona, which added eight new determinations after having added only two in the four previous years. In the four previous years, 1999 through 2002, 142 determinations were entered from Region 9, almost all of them coming from California agencies. Nevada has entered no determinations during this five-year time period. Thirty-four determinations from Region 9 were updated in 2003, all from California agencies. Sixty-six determinations from Region 9 were updated in 2002, with the majority again coming from California agencies. Figure 12 shows the proportional entries by State for 2003 and the years 1999 through 2002, respectively, as well as the updates for 2002 and 2003.

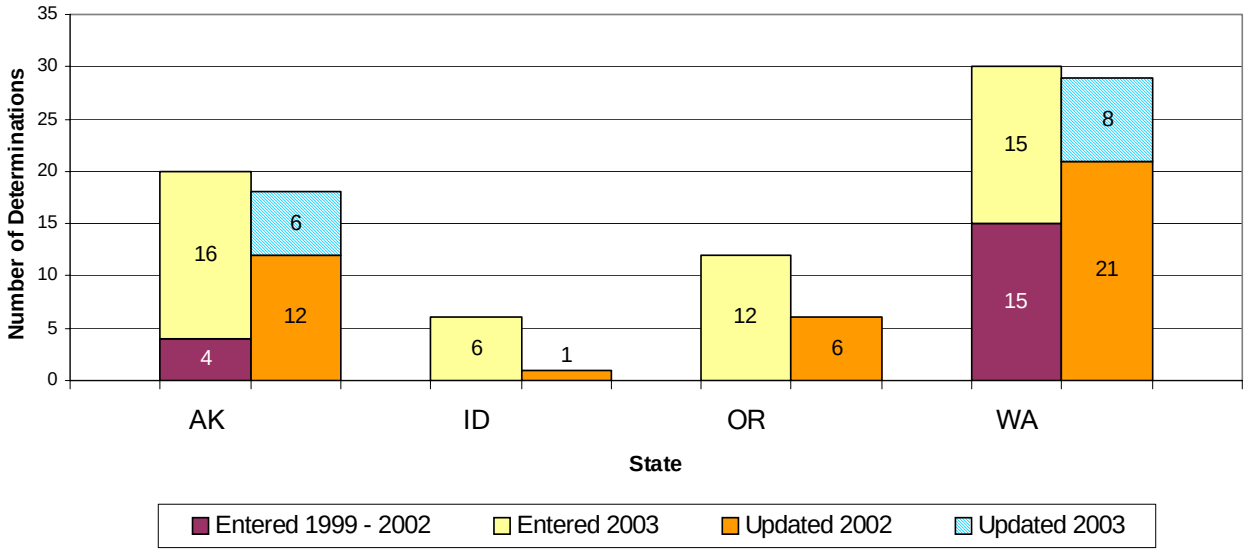
Figure 12 - Number of Determinations Ordered by State for Region 9 (1999 - 2003)



EPA REGION 10

Forty-nine new determinations were entered from Region 10 in 2003, almost triple the number in the previous four years, which was 17. Washington was the highest contributor for the five-year period, followed by Alaska. All of the States in Region 10 entered new determinations in 2003, including two States that had not entered any in the previous four years, Idaho and Oregon. Fourteen determinations from Region 10 were updated in 2003, eight from Washington and six from Alaska. Forty determinations from Region 10 were updated in 2002, half of which were from Washington. Figure 13 shows the proportional entries by State for 2003 and the years 1999 through 2002, respectively, as well as the updates for 2002 and 2003.

Figure 13 - Number of Determinations Ordered by State for Region 10 (1999 - 2003)



INDUSTRY ACTIVITY SUMMARY

Table 2 lists major RBLC process categories, with examples of individual process types within each group. The process type examples presented in Table 2 are not meant to be definitive exhaustive lists of all process types within a process category. Instead, they represent some of the more recognizable types within a given group.

TABLE 2. RBLC Major Process Categories

Process Group Number/Name	Process Type Examples
10.000 COMBUSTION	Fuel Oil Combustion (Boilers) Coal Combustion (Boilers) Wood Waste Combustion (Boilers) Natural Gas Turbines Gasoline Engines Process Gas Turbines
20.000 WASTE DISPOSAL	Municipal Waste Combustors/Incinerators Hazardous Waste Incineration Hazardous Waste Site Remediation Industrial Landfills Contaminated Water Treatment
30.000 WOOD PRODUCTS INDUSTRY	Reconstituted Panelboard Plants (waferboard, particleboard, etc.) Paper Production Woodworking Plywood Manufacturing
40.000 ORGANIC EVAPORATIVE LOSSES	Plastic Parts & Products Surface Coating Petroleum Liquid Storage in Floating Roof Tanks Organic Solvent Cleaning & Degreasing Dry Cleaning Automotive Refinishing
50.000 PETROLEUM/NATURAL GAS PRODUCTION AND REFINING	Petroleum Refining Treating Processes Petroleum Refining Wastewater Treatment Oil and Gas Field Services

60.000 CHEMICALS MANUFACTURING	Phosphate Fertilizers Production Sulfuric Acid Plants Epoxy Resins Production Storage Tanks (SOCMI Chemicals) Rayon Production Pharmaceutical Production
70.000 FOOD AND AGRICULTURAL PRODUCTS	Vegetable Oil Production Alcoholic Beverages Production Bread Bakeries Feed and Grain Storage
80.000 METALLURGICAL INDUSTRY	Steel Foundries Lead Acid Battery Manufacturing Primary Lead Smelting Primary Aluminum Production
90.000 MINERAL PRODUCTS	Portland Cement Manufacturing Asbestos Manufacturing Brick Production Glass Manufacturing
99.000 MISCELLANEOUS SOURCES	Industrial Process Cooling Towers Leather Tanning Rubber Tire Production Geothermal Power

Figure 14 (see page 21) illustrates the distribution of process groups specified in the determinations entered for 2003 and for the years 1999 through 2002 at the national level. A determination may report more than one process, so totals in the graph will not exactly match those in Table 1. Instead, they represent the number of determinations containing a particular type of process. The major categories shown in Figure 14 represent multiple processes as shown in Table 2. For instance, Process Category 10, Combustion, includes process groups for both external and internal combustion devices, each containing processes for each type of fuel that can be consumed.

The most frequently entered process group for the five-year period was combustion processes, followed distantly by organic evaporative loss and wood products. For combustion sources, nearly half of the combustion source determinations entered during 2003 contained a natural gas-fired device. This is a slight decrease from the previous two years, where greater than half of the determinations contained a natural gas-fired device. For IC Engines, fuel oil was the leading fuel. More internal combustion devices (i.e. turbines and IC engines) were permitted than boilers. This continues the trend seen in recent years. The combustion devices were from a wide variety of States, with Texas, Alaska, and Ohio among the top contributors.

Approximately half of the determinations entered in 2003 for process category 40.000 - Organic Evaporative Losses were under process category 42.000 - Organic Liquid Storage and Marketing. In previous years, the majority of the determinations added to the RBLC over the past five years under organic evaporative losses were in the 41.000 category - Surface Coating/Printing/Graphic Arts. The increase in the number of organic liquid storage and marketing processes added during 2003 was due, in part, to an increase in submissions related to category 42.009 - Volatile Organic Liquid Storage. Over three-fourths of the determinations falling under the organic evaporative losses category submitted during 2003 were from Texas and California.

The number of entries under process category 30.000 - Wood Products declined in 2003 after increasing in each of the previous four years. Over half of the determinations entered over the five-year period were for process categories 30.002 and 30.004, Kraft Pulp Mills and Pulp and Paper Production other than Kraft, respectively. Arkansas had the highest total number of determinations added to the RBLC in 2003 in process category 30.000, followed by Texas. Over the last five years, Wisconsin had the highest total number of determinations added to the RBLC in the process category. The remainder of the determinations were distributed across 25 States, with Arkansas, Texas, Louisiana, and Alabama among the major contributors.

The increase in determinations seen in 2002 from Chemical Manufacturing, process category 60.000, continued in 2003. A total of 42 determinations were entered in 2003 and 40 in 2002, while the combined total for 1999 through 2001 was 39. This increase was distributed among several process categories that were well-represented among several States. Process categories for SOCMI-related processes, including 64.004 - Storage Tanks (SOCMI only), 64.005 - Transfer of SOCMI Chemicals, and 64.999 - Other SOCMI Processes, had the greatest number of new determinations in 2003. Texas had the largest number of new determinations in 2003, followed by Ohio.

The Metallurgical Industry, process category 80.000, also had a large number of entries over the past five years. The number of 2003 additions declined from the totals seen in 2000 through 2002. Greater than 90 percent of the additions in the five-year period occurred from 2000 to 2002. The 17 additions in 2003 were spread among 10 States, with Michigan, Ohio, and Texas each having three. Most of the determinations submitted nationwide during the five-year period were from process category 81.004, Iron Foundries, with category 81.006, Steel Foundries, and 81.007, Steel Manufacturing, following distantly. In 2003, process category 81.007 had the largest number of new determinations, and the number of new determinations from process category 81.004 declined from previous years.

Mineral Products, process category 90.000, was consistently represented throughout the five-year period, and more new determinations were entered in 2003 than in any of the four previous years. There was a slightly higher proportion of determinations added from category 90.019 - Lime/Limestone Handling/Kilns/Storage/Manufacturing, and category 90.028 -

Portland Cement Manufacturing during the five-year period. Mineral Products determinations entered during 2003 were from 17 States in eight EPA Regions.

For the process category 50.000 - Petroleum/Natural Gas Production and Refining, there was a large increase in determinations entered in 2003 as compared to the previous four years. The increase was distributed across several process categories, including 50.003 - Petroleum Refining Conversion Processes, 50.008 - Petroleum Refining Flares and Incinerators, and 50.007 - Petroleum Refining Flares and Incinerators. Texas had the largest number of new determinations in process category 50.000, followed by Alaska. A total of 10 States had new determinations in this process category in 2003.

The remaining major categories are all under 60 total determinations over the past five years. No major trends can be seen emerging from these areas. However, it is worth noting that there is steady activity within these categories and determinations are continuing to be added to the RBLC across many different types of industries.

As discussed in the national summary section above, Regions 4, 5, and 6 contributed the largest share of determinations. They accounted for over 60 percent of the determinations submitted in 2003. Entries from these three regions represent a wide range of processes. A large portion of the processes are combustion sources. While 2003 showed an overall decrease from 2002 in the number of determinations entered, most process categories were well-represented. Table 3 shows the distribution of process entries by region.

Figure 14 - Distribution of Entries by Process Group (1999 through 2003)

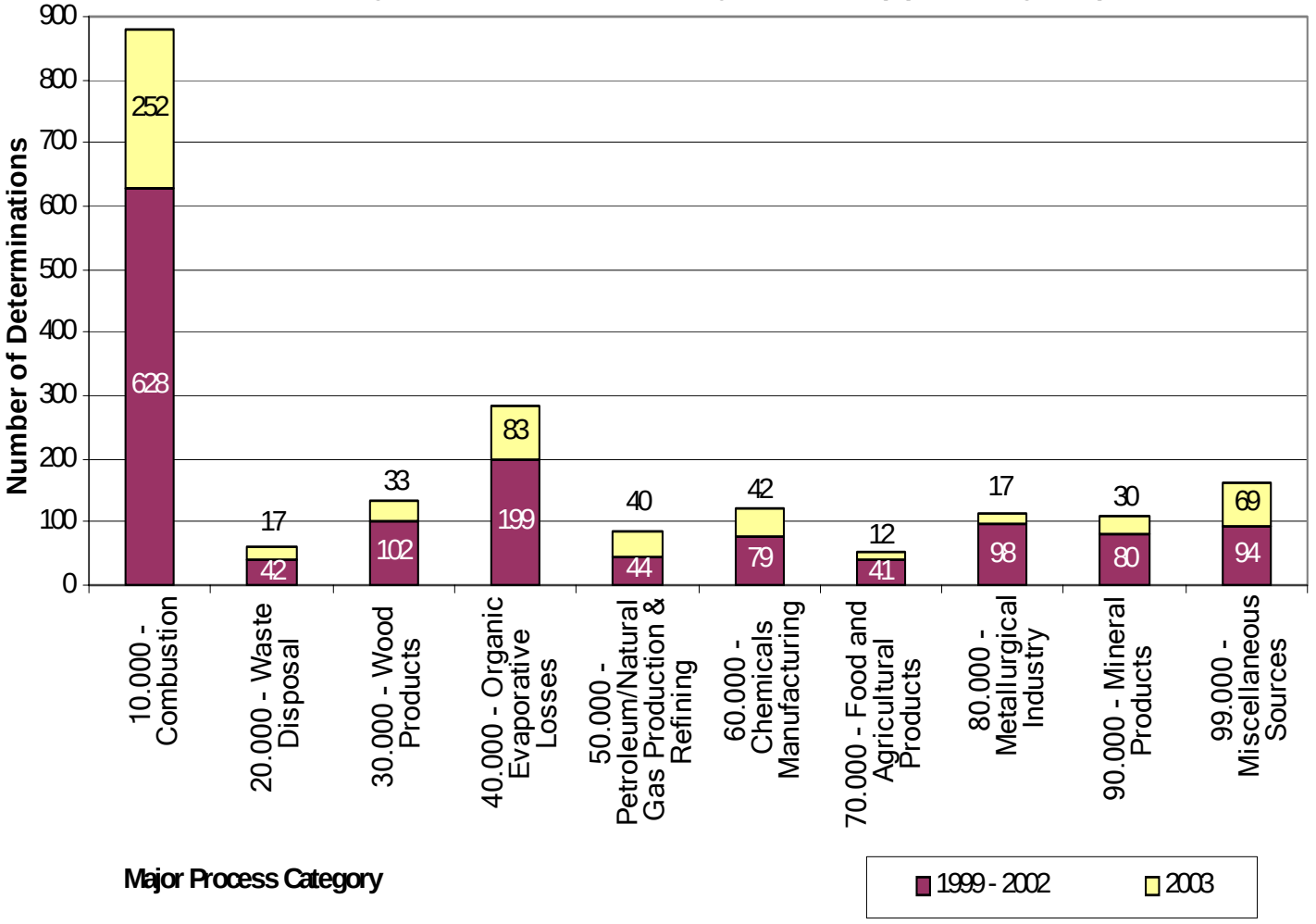


Table 3. Process Entries by Region in 2003

Process Group	EPA Region										Totals
	1	2	3	4	5	6	7	8	9	10	
10.000 - Combustion	4	0	24	29	41	93	6	3	13	39	**252**
20.000 - Waste Disposal	0	0	1	2	2	10	0	0	0	2	**17**
30.000 - Wood Products Industry	0	0	1	8	7	13	0	2	0	2	**33**
40.000 - Organic Evaporative Losses	1	0	3	1	8	35	1	0	27	7	**83**
50.000 - Petroleum/Natural Gas Refining	0	0	1	1	4	25	0	0	1	8	**40**
60.000 - Chemicals Manufacturing	0	0	1	7	4	28	0	0	0	2	**42**
70.000 - Food & Agricultural Products	0	0	0	0	8	2	1	0	0	1	**12**
80.000 - Metallurgical Industry	0	0	2	3	6	4	1	0	0	1	**17**
90.000 - Mineral Products	0	0	6	3	4	8	2	2	1	4	**30**
99.000 - Miscellaneous Sources	0	0	2	6	11	47	1	0	1	1	**69**
Totals	**5**	**0**	**41**	**60**	**95**	**265**	**12**	**7**	**43**	**67**	**595**

RBLC PROGRAM DEVELOPMENT

In 2003 the RBLC continued to implement major improvements and gather missing information. Considerable progress was made in acquiring missing data for permits issued prior to 2003 from all permitting agencies, but especially from State agencies in California and Texas. In 2003, the RBLC focused on acquiring data for major NSR permits that were issued within the previous 5 years (1/1/98-12/31/02) that were not in the Clearinghouse. Nationwide, 475 missing permits were identified (excluding California). Information on 219 of these missing permits was received and entered into the RBLC. This addition brought the total number of permits issued within the 5 year period that are entered in the RBLC to 1,233 (83% of the permits issued in the period). Therefore, 256 major NSR permits issued within the 5 year period (17% of the permits issued in the period) are still missing from the RBLC Web data base. As a result, the RBLC must continue its effort to acquire this data in 2004. However, because of resource limitations and the difficulty in acquiring information on older permits, the RBLC will begin to switch its focus in 2004 from permits issued in the previous 5 years to permits issued in the previous calendar year.

In May 2003, based on an RBLC initiative and funds, EPA awarded a cooperative agreement to Research Triangle Institute International (RTI) to implement a New and Emerging Environmental Technologies (NEET) Web data base. NEET will initially focus on new and emerging air technologies and provide information that will supplement and compliment existing permit information on RACT, BACT and LAER decisions that are in the Clearinghouse. NEET will provide permit applicants and permitting agencies with a quick and convenient way to identify new technologies that should be considered as control and prevention options within the permitting process. NEET should make its public debut in the early Spring, 2004.

In concert with its partners, the CATC and the U.S.-Mexico Border Information Center on Air pollution (CICA, from its Spanish title: *Centro de Información sobre Decontaminación de Aire*) and in support of EPA's Economics and Cost Analysis Support Group, the RBLC has posted the new EPA Air Pollution Control Cost Manual - Sixth Edition (EPA 452/B-02-001) and upgraded all CICA technology fact sheets to conform with the new edition of the cost manual. The cost manual and fact sheets are available on the CATC (English only) and CICA (English and Spanish) Web pages through the "CATC Product Information" and "Products"/"*Productos"* (CICA) links in the sidebar menus. Links to CICA are provided from the CATC Home page <http://www.epa.gov/ttn/catc/>. The CATC also has posted a new technical bulletin in 2003: Using Bioreactors to Control Air Pollution (EPA-456/R-03-003). This report is also available on the CATC and CICA Web sites in English and Spanish.

In 2003, the RBLC initiated a new search routine that allows users to find the lowest emission rate for a particular pollutant emitted from a specific type of process. Currently this new search is limited to combustion sources. Additional sources will be added over the next few years as the RBLC implements improvements to its source classification system.

The RBLC also initiated work that will eliminate unnecessary data fields in order to: facilitate data entry; reduce the amount of resources needed to input and quality assure RBLC entries; and make the RBLC more user-friendly. About 40% of the existing RBLC data fields will be eliminated.

Work continues on improvements and resolution of problems identified in the five RBLC Workshops held throughout the country in 2001 and 2002. Summaries of each workshop and a list of action items from all workshops are posted on the RBLC Web in the RBLC Products download area under the heading "RBLC Public Workshops." Five major problem areas were identified through the RBLC Workshops. Although the RBLC has made significant progress in addressing these issues, more work remains. These problem areas and the RBLC's responses are:

1. Incomplete Data

   Problem: The RBLC does not contain all BACT and LAER determinations and, for those determinations that are included, the information is incomplete.

   Response: Although the RBLC has made significant strides in acquiring missing data (up from 40% to 83% of permits now in the RBLC), this is an ongoing problem. All but LAER submissions to the RBLC are voluntary; therefore, success resolving this problem requires the on-going cooperation of State and local permitting agencies.

2. Compliance not verified

   Problem: In most cases, the RBLC Web does not include information that confirms that a source was constructed and that compliance with the emission limits indicated in the data base (permit to construct) has been demonstrated. Although data fields are provided, permitting agencies rarely update the RBLC data base to indicate that the source was constructed and compliance with the emission limits in the permit have been verified.

   Response: This is a difficult problem because, at most agencies, compliance verification is not the responsibility of the permit writer (i.e., the traditional RBLC agency contact). The task of identifying and communicating with new contacts (permit compliance inspectors) for all RBLC entries is daunting. As an alternative, the RBLC is considering limiting construction and verification efforts to only those entries that establish the most stringent emission limits for a particular source category and pollutant.

3. No Cost Information:

   Problem: Although data fields are provided, virtually no cost information has been entered or provided by agencies.

Response: The RBLC is reducing the number of data fields required for cost information to reduce the burden of supplying that information; however, gathering pollution control/prevention cost information remains a difficult task.

4. Emerging Technologies:

Problem: The RBLC data base indicates the technologies and emission limits that have been approved in permits. Users have expressed a need to identify and obtain information on new and emerging technologies that may be more effective in reducing air pollution and/or more cost effective.

Response: The NEET Web data base (see above) addresses this need.

5. User-friendliness:

Problem: The RBLC Web can be confusing to new users and, at times, can even challenge more experienced users. We would like to make the Clearinghouse more user-friendly and improve the quality of service offered.

Response: Simplified search routines have been implemented, and major reductions in RBLC data base fields and improvements to data input screens are scheduled to be implemented by March 2004. Additional improvements to public access Web screens will be made as resources allow. User-friendly activities are an on-going and require continuous reevaluation and modifications of RBLC Web pages and programming as new techniques in information technology become available.

The RBLC Subgroup, NSR Advisory Subcommittee, Clean Air Act Advisory Committee did make recommendations in January 1994 that generally covered most of the problems noted above. To a large extent, RBLC workshop participants echoed these recommendations, but were able to relate them to specific action items that addressed the RBLC Web as it now exists, and the Clearinghouse's current mode of operation. A summary of these improvements and related activities follows.

Actions Completed in 2003:

- Visited Texas Commission on Environmental Quality to acquire missing permit data (2^{nd} visit)
- Issued new users' manual and annual reports
- Upgraded the RBLC Standalone Editor (off-line PC based software for users to enter and format RBLC data off-line for uploading to the RBLC data base)
- Updated linkage to related technical sites, software tools, State and local permitting agency sites/contacts
- Awarded NEET Web data base cooperative agreement
- Provided updated EPA Air Pollution Control Cost Manual in English and Spanish

- Updated Pollution Control Device Fact Sheets
- Issued new technical bulletin on bioreactors in English and Spanish
- Updated Standard Industrial Classification (SIC) codes to the new North American Industrial Classification System (NAICS)
- Implemented new "Find Lowest Emission Rate" search routine for combustion sources (ability to list most stringent to least stringent emissions limits and technologies for a specific type of process and pollutant)

2004 On-Going Initiatives:

- Improved coordination with State and locals permitting agencies and EPA Regional Offices
- Resolve remaining issues with California and restore routine data input activities
- Complete data acquisition activities in Texas and implement new initiatives, as resources permit
- Streamline RBLC data base (40% reduction) and upgrade data entry
- Continue work on improvements in response to public workshop comments
- Add waste disposal, pulp and paper, refinery, and steel manufacturing processes to lowest achievable emission rate search routine.
- Monitor progress in cooperative agreement to provide a New and Emerging Environmental Technology Data Base (direct access to new technology /venders)
- Issue Emerging Technology Technical Bulletin on non-thermal plasma

Under consideration

- Cost data acquisition
- Provide links between:
    - RBLC main (permits) data base, RBLC regulation data base, and Code of Federal Regulations;
    - RBLC main data base to permits on State and local agency Web pages
- Training - Develop on-line tutorial and/or CD based training material
- Industry Sector Technology Assessments - reports that identify and evaluate technology used in a particular industry sector, including their effectiveness and cost; also emerging technology and trends
- Graphic Display of RBLC Sources, Class I Areas and other GIS information

Other improvements and revisions to the system will continue to be considered as a result of contacts with RBLC clients. These improvements and revisions will be evaluated and implemented based on input from State and local agencies that enter or submit determinations to the Clearinghouse. Check the RBLC Web for more details on improvements and enhancements.

All inquiries concerning RBLC and information contained in the RBLC Web data base should be directed to:

RBLC (E143-03)
U.S. EPA
RTP, NC 27711

OR

The Clean Air Technology Center Information Line
(919) 541-0800, FAX (919) 541-0242
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APPENDIX A

ABOUT THE RACT/BACT/LAER CLEARINGHOUSE

BACKGROUND

The Clean Air Act prescribes several technology-based limitations affecting new or modified air pollution sources: 1) new source performance standards (NSPS); 2) best available control technology (BACT); and 3) lowest achievable emission rate (LAER). New Source Performance Standards are uniform national emission standards set by EPA for specific categories of new or modified stationary sources. In addition to meeting NSPS when applicable, major new or modified sources must also install either BACT or LAER, both of which are determined on a case-by-case basis. In all cases, BACT or LAER must be at least as stringent as any applicable NSPS. The BACT requirement, which is a part of the Prevention of Significant Air Quality Deterioration program (Sections 165 and 169 of the Clean Air Act), applies to emissions in areas that are in attainment with National Ambient Air Quality Standards (NAAQS). The LAER requirement, which is a part of the Nonattainment Program (Sections 171 and 172 of the Clean Air Act), applies to emissions that affect areas that are not in attainment with the NAAQS. While the specific criteria governing a BACT, LAER, or NSPS emission limit vary, the general underlying approach for all such determinations is to require "best control" on all major new or modified sources. Since 1977, State and local air pollution control agencies have gradually assumed primary responsibility for making BACT and LAER determinations. As this authority was decentralized from the Federal government, it became important that information be made available to control agencies to assist them in making control technology determinations in a nationally consistent manner. As a result, the BACT/LAER Clearinghouse was established in 1979.

The 1990 Clean Air Act Amendments (CAAA) mandated several minor changes to the BACT/LAER Clearinghouse. Although the changes were minor, State and local agencies should note them for future consideration. The first change involved the name and an addition to the type of data contained in the Clearinghouse. The name changed to the RACT/BACT/LAER Clearinghouse (RBLC) and now includes Reasonably Available Control Technology (RACT) determinations. RACT is defined as the lowest emission limitation that a particular source is capable of meeting by application of control technology that is reasonably available considering technological and economic feasibility. RACT is the minimum requirement EPA can accept for existing major sources in State non-attainment plans. Control Technique Guideline (CTG) documents were assembled by the EPA to assist State and local air pollution control agencies in determining the level of control that should be required within each area. The RBLC accepts case-by-case RACT decisions, as well as general RACT requirements, to assist State and local agencies in determining what level of control other areas of the country are requiring and, in turn, what level of control should be required within their jurisdiction.

The second change mandated by the 1990 CAAA involves LAER determinations. Prior to the 1990 CAAA, all submittals to the Clearinghouse were voluntary. However, Section 173(d) of the 1990 CAAA now mandates that State and local agencies submit any and all LAER determinations that they issue.

The basic purposes of the RBLC are to: 1) provide State and local air pollution control agencies, industry, and the public with current information on case-by-case control technology determinations that are made nationwide, and 2) promote communication, cooperation, and sharing of control technology information among the permitting agencies.

THE RBLC WEB

The RBLC's primary vehicle for sharing control technology information is the RBLC Web. The Clearinghouse provides on-line querying of its data base and makes the results available for viewing on-screen or downloading to a PC. This information system also supports direct submittals of control technology determinations by permitting agencies. Routine access to the data base is available to anyone who has a personal computer with access to the World Wide Web.

The RBLC Web is part of the Office of Air Quality Planning and Standards Technology Transfer Network (TTN) World Wide Web (Web) site. It can be accessed through the Clean Air Technology Web on the TTN. Users of the RBLC Web can search on any number of different items. Searchable items have been designated as "required" fields for new determinations.

The graphical environment of the Web supports a simplified search procedure. Users select a data base of interest (see below) and one or more searchable fields from drop-down lists displayed in their web browser and/or fill in text boxes with the value they are trying to match to execute the query. The query finds all determinations in the RBLC data base that match the specified criteria and displays the results for viewing in the browser. In addition, several output formats are provided for downloading or printing.

The permit data base in the Clearinghouse has been segmented into three searchable parts. Any one or combination of these segments can be searched at the same time. The current data segment contains completed RBLC determinations for permits issued within the past 10 years. The historical segment contains completed RBLC determinations for permits issued more than 10 years ago. Determinations in the current and historic segments of the RBLC data base are referred to as final determinations. The draft segment of the RBLC data base provides a work space for users to enter new and update existing determinations. Determinations in the draft segment are referred to as draft determinations. The RBLC staff regularly review draft determinations and promote accurate and complete determinations to final determinations (i.e., they become part of the current or historical segments based on their permit dates).

The RBLC also maintains a data base of federal regulations, that includes summaries of federal regulations enacted in response to the Clean Air Act. These rules include Maximum Achievable Control Technology (MACT) standards, National Emission Standards for Hazardous Air Pollutants (NESHAP), New Source Performance Standards (NSPS), and Control Techniques Guideline (CTG) documents that specify requirements for Reasonably Available Control Technology (RACT). The regulation data base offers options that allow you to scan or query the regulation data. The query option brings the power of user-defined queries to the complex

details of air pollutant emissions regulations. Using the same user-friendly browser interface as the RBLC's permit data base, users can build a query to locate pertinent regulations for a particular pollutant or process or for a broad array of other criteria. You can also bypass the query step and go directly to viewing a list of all the federal regulations.

APPENDIX B

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APPENDIX C
INDEX OF CONTROL TECHNOLOGY DETERMINATIONS
ENTERED OR MODIFIED IN 2002
SORTED BY EPA REGION AND STATE

Note: A '*****' displayed before the facility name indicates that a determination is currently located in the Draft Determinations Data Base

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16. ABSTRACT

The Clean Air Act as amended in 1977 prescribes several technology-based limitations affecting new or modified air pollution sources: 1) new source performance standards (NSPS),2) best available control technology (BACT), and 3) lowest achievable emission rate (LAER).

The basic purposes of the RACT/BACT/LAER Clearinghouse are 1) to provide State and local air pollution control agencies with current information on case-by-case control technology determinations that are made nationwide and 2) promote communication, cooperation,and sharing of control technology information among the permitting agencies. The information presented in this compilation was abstracted from per-construction permits and submitted voluntarily by the State and local air pollution control agencies. The Clearinghouse is intended as a reference for States and local agencies in making RACT/BACT/LAER decisions.

The RBLC has now moved to the World Wide Web. The RBLC Web address is:

http://www.epa.gov/ttn/catc/

Clicking on the RBLC logo on this page allows access to all of the information in the RBLC including interactive queries, customized reports, and downloadable copies of this and other RBLC documents.

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